



## Contents of volume 106

Volume 106, Nos. 1,2

December 1 1998

### Review

#### Mechanisms of maturation and ageing of collagen

- A.J. Bailey, R.G. Paul, L. Knott (Bristol, UK) . . . . . 1

#### Sensitivity to ageing of the limbic dopaminergic system: a review

- P. Barili, G. De Carolis, D. Zacheo, F. Amenta (Camerino, Roma, Genoa, Italy) . . . . . 57

#### Hypomethylation of an exon I estrogen receptor CpG island in spontaneous and carcinogen-induced mammary tumorigenesis in the rat

- P. Yenbutr, L. Hilakivi-Clarke, A. Passaniti (Baltimore, MD; Washington, DC) . . . . . 93

#### Fidelity levels of DNA polymerases in tumorigenic state cells and serially transplantable tumor cells

- T. Taguchi, M. Fukuda, M. Ohashi (Tokyo, Japan) . . . . . 103

#### Lack of correlation between apoptosis and DNA single-strand breaks in X-irradiated human peripheral blood mononuclear cells in the course of ageing

- C. Chauvin, E. Heidenreich, K. Elmendorff-Dreikorn, H. Slor, J. Kutzner, R. Batel, H.C. Schröder (Mainz, Germany; Tel-Aviv, Israel; Rovinj, Croatia) . . . . . 117

#### T-Kininogen is a biomarker of senescence in rats

- R. Walter, D.M. Murasko, F. Sierra (Philadelphia, PA) . . . . . 129

#### Similar responses by macrophages from young and old mice infected with *Mycobacterium tuberculosis*

- E.R. Rhoades, I.M. Orme (Denver, CO) . . . . . 145

#### Serum hyaluronic acid in Down's syndrome

- T. Hutchin, L. Martin, V. Prasher, A.J. Sinclair (Birmingham, UK) . . . . . 155

#### Changes in the regulation by endothelium of norepinephrine response in isolated, perfused mesenteric vascular bed of rats at different ages

- C. Konishi, Y. Naito, N. Ohara (Kanagawa, Japan) . . . . . 161

|                                                                                                                                                                  |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Age peculiarities of changes in the contractile function of isolated rat hearts during prolonged perfusion<br>V.V. Frolkis, O.V. Beruk (Kiev, Ukraine) . . . . . | 173 |
| Zinc, T-cell pathways, aging: role of metallothioneins<br>E. Mocchegiani, M. Muzzioli, C. Cipriano, R. Giacconi (Ancona, Italy) . . . . .                        | 183 |
| Lumbar motor neuron size and number is affected by age in male F344 rats<br>J.M. Jacob (Oklahoma City, OK) . . . . .                                             | 205 |

## Volume 106, No. 3

January 15, 1999

|                                                                                                                                                                                                                                                                                                                                    |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Age-associated alterations in cardiac and skeletal muscle glucose transporters, insulin and IGF-1 receptors, and PI3-kinase protein contents in the C57BL/6 mouse<br>L.C. Martineau, S.G. Chadan, W.S. Parkhouse (Burnaby, Canada) . . . . .                                                                                       | 217 |
| Geroprotector effectiveness of melatonin: investigation of lifespan of <i>Drosophila melanogaster</i><br>D.M. Izmaylov, L.K. Obukhova (Moscow, Russia) . . . . .                                                                                                                                                                   | 233 |
| Effect of in vitro aging on the biosynthesis of glycosaminoglycans by human skin fibroblasts. Modulation by the elastin-laminin receptor<br>I. Fodil-Bourahla, I. Drubaix, L. Robert (Paris, Ivry sur Seine, France) . . . . .                                                                                                     | 241 |
| Telomere shortening during aging of human osteoblasts in vitro and leukocytes in vivo: lack of excessive telomere loss in osteoporotic patients<br>M. Kveiborg, M. Kassem, B. Langdahl, E.F. Eriksen, B.F.C. Clark, S.I.S. Rattan (Aarhus, Denmark) . . . . .                                                                      | 261 |
| Age-dependent changes in rat liver microsomal membrane structure and functions under benzene treatment<br>A.L. Sukhodub, V.I. Padalko (Kharkiv, Ukraine) . . . . .                                                                                                                                                                 | 273 |
| A low degree of fatty acid unsaturation leads to lower lipid peroxidation and lipoxidation-derived protein modification in heart mitochondria of the longevous pigeon than in the short-lived rat<br>R. Pamplona, M. Portero-Otín, J.R. Requena, S.R. Thorpe, A. Herrero, G. Barja (Lleida, Madrid, Spain; Columbia, SC) . . . . . | 283 |
| Interleukin-5 production by mononuclear cells from aged individuals: implication for autoimmunity<br>D. Lio, C. D'Anna, L. Scola, G. Di Lorenzo, A. Colombo, F. Listi, C.R. Balistreri, G. Candore, C. Caruso (Palermo, Italy) . . . . .                                                                                           | 297 |
| Effects of hindlimb suspension on contractile properties of young and old rat muscles and the impact of electrical stimulation on the recovery process<br>C. Mercier, J. Jobin, C. Lépine, C. Simard (Sainte-Foy, Québec, Canada) . . . . .                                                                                        | 305 |

*Contents of volume 106*

329

Author index of volume 106

321

Subject index of volume 106

323

Contents of volume 106

327